Amendments to the Claims:

1. **(Previously Presented):** A N-radiohaloaryl-alkylcarboxamide radioligand wherein the alkyl moiety thereof is a cyclohexane radical, the radioligand having a high affinity to TRP-M8 receptors in cells and tissues and having a specific activity of at least about 20 Ci/mmol or greater, wherein the TRP-M8 affinity is characterized by a Kd of about 1×10^{-5} or less.

2. **(Previously Presented):** The radioligand as in claim 1 wherein the radiohalo moiety is covalently bound in the molecule.

3. **(Previously Presented):** The radioligand as in claim 2 wherein the radiohalo moiety is selected from fluoride and iodide radionuclides.

4. **(Previously Presented):** The radioligand as in claim 3 wherein the specific activity is about 250 Ci/mmol or greater.

5. **(Previously Presented):** The radioligand as in claim 1 wherein the cyclohexane radical contains from 1 to 3 $C_1 - C_5$ normal or branched alkyl substituents.

6. **Cancelled.**

7. **(Previously Presented):** The radioligand as in claim 1 wherein the aryl moiety is a substituted aromatic radical represented by Y-, the substituents being

   represented by $\mathbf{R_1}$, $\mathbf{R_2}$, and **X**, wherein

   $\mathbf{R_1}$ is selected from the group hydrogen, hydroxyl, $C_1 - C_3$ alkoxy, $C_1 - C_3$ carboxyalkyl, $C_1 - C_3$ oxycarbonylalkyl,

   $\mathbf{R_2}$ is selected from the group hydrogen, hydroxyl, $C_1 - C_3$ alkoxy, trifluoromethyl, nitro, cyano, halo, and

X is selected from the group [^{18}F]-, [^{123}I]-, [^{125}I]-, and [^{131}I]-.

8. **Cancelled.**

9. **Cancelled.**

10. **Cancelled.**

11. **(Previously Presented):** A composition comprising a N-radiohaloaryl-alkylcarboxamide of Formula 1:

Formula 1

R-CONH-Y

where (a) **R** is a cyclohexane radical containing from 1 to 3 $C_1 - C_5$ normal or branched alkyl substituents, and (b) **Y** is a substituted aromatic radical containing substituents $\mathbf{R_1}$, $\mathbf{R_2}$, and **X**, wherein

$\mathbf{R_1}$ is selected from the group hydrogen, hydroxyl, $C_1 - C_3$ alkoxy, $C_1 - C_3$ carboxyalkyl, $C_1 - C_3$ oxycarbonylalkyl,

$\mathbf{R_2}$ is selected from the group hydrogen, hydroxyl, $C_1 - C_3$ alkoxy, trifluoromethyl, nitro, cyano, halo, and

X is selected from the group [^{18}F]-, [^{123}I]-, [^{125}I]-, and [^{131}I]-.

12. **(Previously Presented):** The composition as in claim 11 wherein the cyclohexane radical of (a) contains 8-12 carbon atoms and the total number of carbon atoms in the alkyl substituents carbons are from 1 to 5.

13. **(Previously Presented):** The composition as in claim 12 wherein the carboxamide group is in an equatorial position relative to the plane of the cyclohexyl ring.